

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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In the Matter of

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**FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY**

Amendment of the Commission's Rules
Concerning Maritime Communications

)

PR Docket No. 92-257

)

)

Petition for Rule Making filed by
RegioNet Wireless License, LLC

)

RM-9664

)

COMMENTS

MOBEX COMMUNICATIONS, INC.

Dennis C. Brown
126/B North Bedford Street
Arlington, Virginia 22201
703/525-9630

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ORIGINAL

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Summary of the Filing

Mobex Communications, Inc. strongly supports the Commission's AMTS geographic area licensing proposal.

Only one licensing scheme should be adopted for all AMTS spectrum. Revised geographic licensing areas should be adopted.

No AMTS spectrum should be set aside for Public Safety use. Non-conforming uses can be accommodated by disaggregation and partitioning.

The established service area definition should be maintained, but experience with automated systems has demonstrated that the protection ratio proposed by the Commission would be insufficient. Greater protection of incumbent systems is required to assure continued AMTS service to the public.

The Commission's licensing rules should reduce opportunities for obstructive behavior by applicants and others. Technical requirements for geographic based systems should be eliminated or reduced.

An AMTS licensee should be permitted to acquire all AMTS spectrum. The Commission's rules should not limit AMTS spectrum acquisition either by auction or by private agreements.

Competitive bidding rules should provide bidding credits and attribution rules which reflect business realities for small and very small businesses.

Pending mutually exclusive applications should be dismissed or returned. New, competitive AMTS service would be unduly delayed by consideration of such applications.

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To: The Commission		

COMMENTS

Mobex Communications, Inc. (Mobex) and its subsidiary, Regionet Wireless License, LLC (Regionet) hereby respectfully submit their Comments in the above captioned matter. In support of its position, Mobex shows the following.

Mobex strongly supports the Commission's proposal to designate licensing regions and authorize one licensee for each currently unassigned Automated Maritime Telecommunications System frequency block on a geographic basis. Mobex also enthusiastically supports the Commission's proposal to permit incumbent AMTS licensees to continue to operate their systems indefinitely, with geographic licensees providing interference protection to incumbents.

I. In Brief

Mobex agrees with the Commission that a geographic assignment plan should be adopted. A smaller number of AMTS geographic areas should be adopted.

Only one licensing scheme should be used for all AMTS spectrum. A variety of schemes would not serve the public interest.

No AMTS spectrum should be reallocated to Public Safety use. The factors which supported allocation of VHF Public Coast channels to Public Safety use are not present in the AMTS band.

Protection of incumbent systems from interference is crucial to the public interest. The established service area definition should be continued, but greater protection of automated systems is required.

The Commission's geographic area licensing rules should reduce opportunities for behavior which unduly obstructs the provision of new competitive service to the public. Technical application requirements should be eliminated or reduced.

A licensee should be permitted to acquire all AMTS spectrum, whether by auction or from other licensees.

Bidding credits should provide real opportunities to small and very small businesses. Adjustments should be made to reflect business realities.

All pending mutually exclusive applications should be returned or dismissed. Any consideration of such applications would unduly delay the provision of new AMTS service.

II. Background

Acting by Regionet, Mobex operates AMTS systems in the 216-220 MHz band, serving the maritime and land mobile public across the United States. Accordingly, Mobex is vitally interested in the Commission's proposals concerning the future licensing and operation of AMTS systems.

Regionet is authorized to provide AMTS service to the Atlantic Coast from the State of Maine to Florida and around the Florida peninsula to Tampa, as well as to Puerto Rico. Regionet serves the Pacific Coast from the Washington to California. Regionet is also authorized to provide AMTS service to four of the five Great Lakes and to the Erie Canal. Inland, Regionet provides AMTS service to the Mississippi River System, the Gulf Coast, and the Gulf Intracoastal Waterway through its recently merged Waterway Communications Systems, Inc. (WATERCOM) operations. In most areas, Regionet operates on frequency Group A, and Regionet operates on both frequency Group A and frequency Group B in some inland areas. As the leading operator of AMTS systems, the successor-interest to WATERCOM, and parent of Regionet, Mobex is well positioned to inform and advise the Commission in the above captioned matter.

III. Comments

A. A Geographic Assignment Plan Should Be Adopted

The Commission is entirely correct that its current rules for authorization of AMTS facilities have unduly restricted the development of AMTS service. Grant of all future AMTS authorizations by geographic areas will expedite abundant use of the scarce spectrum.

The Commission is also correct that its current application procedures have resulted in excessive delays in granting authorizations and have imposed substantial application and litigation costs which can be avoided by the use of geographic licensing. The existing procedures have not met the goal of providing symmetry among competing services and have impaired the provision of truly nationwide AMTS service in competition with other CMRS providers.

B. Band Manager Licensing Would Not be Appropriate

There is no basis for concluding that the establishment of band manager licensing in the AMTS band would further the public interest in any way. The band manager plan may be appropriate to virgin spectrum on which there is no established service, such as in the 700 MHz band, but establishing a band manager scheme would add only the potential for unproductive diversion from the goal of establishing a nationwide AMTS service.

To the extent that diverse uses of AMTS spectrum may appear to be desirable, those uses can be accommodated by partitioning and disaggregation by licensees. Mobex supports the customary provision of authority for an AMTS licensee to disaggregate spectrum or partition

territory. Both mechanisms help to assure that all spectrum is put to the best possible use for the public.

C. A Smaller Number of Geographic Areas Should be Adopted

While the large number of VHF Public Coast Areas (VPCs) employed by the Commission in the band 156-162 MHz band (the VHF band) was appropriate to that band, a smaller group of AMTS Public Coast Areas (APCA) should be used for AMTS geographic licensing. In the VHF band, the Commission was confronted with a situation in which it had only a small number of channels to offer and many of those channels were already authorized in not only major maritime areas, but in inland rural areas, as well. Further, the VHF spectrum was shared by private land mobile licensees in inland areas. In the AMTS band, however, spectrum is allocated, but the Commission's Rules have essentially prohibited the development of AMTS over much of the nation's territory. To maximize the incentive for licensees to make the highest and best use possible of the spectrum, the Commission should adopt a group of nine APCAs more closely tailored to existing AMTS service areas.

As shown by the map attached as Exhibit I hereto, Mobex recommends that the Commission retain the Atlantic, Pacific, and Great Lakes coastal VPCs of the contiguous United States, namely, VPCs 1, through 7. The Commission should also retain APCA 9, Alaska. The inland VPCs adjacent to the VPCs having coastal exposures should be merged with coastal VPCs. Specifically, VPCs 8, 34, 36, 37, 41, and 42 should be merged with VPC 6 to form the Southern

Pacific APCA.¹ VPCs 30 through 33 should be merged with VPC 7 to form a Northern Pacific APCA.

While the Commission proposed a single inland geographic area, Mobex believes that competitive interest will be greater if the Commission adopts two inland APCAs. VPCs 10 through 18, 22, 24, and 25 should be merged with VPC 4 to form the East Central APCA. VPCs 19, 20, 21, 23, 26 through 29, 35, and 37 through 42 should form the West Central APCA (APCA 8). These alignments will provide both economic relevance to the inland APCAs and improve the potential for active competitive bidding for the service opportunities.

Although there had been a close connection between the VHF Public Coast service, with its requirement for monitoring Channel 16, and the activities of the United States Coast Guard, no such relationship exists for AMTS operators. Therefore, economic realities, rather than the administrative zones of a different agency, should determine the definition of AMTS geographic areas. Existing AMTS operators serve large or lengthy areas and are positioned to expand those operations on a correspondingly large scale. Adoption of a larger number of geographic licensing areas would be likely to complicate and unduly extend competitive bidding, increasing the transaction costs of the Commission and competing bidders with no compensating benefit to the public. Therefore, the Commission should adopt the APCAs suggested herein.

¹ Because of its close maritime economic connection with California, Hawaii should be part of the Southern Pacific APCA.

D. Only One Licensing Scheme Should be Used

There would be nothing to be gained from applying different licensing schemes to the two currently available AMTS frequency Groups. The division of channels or frequency Groups among nationwide, regional, and local geographic areas might have been useful in the 220-222 MHz band, in which there was no established service, but such a scheme would not be useful for AMTS.² Employing different licensing schemes for different AMTS channels would merely complicate the licensing process and obstruct or delay an AMTS licensee's acquiring sufficient spectrum to provide a maximally efficient service to the public. Because of the unique nature of a maritime service, no experience would be gained which could provide guidance for future licensing regulation. Any irregular licensing scheme could severely diminish applicant interest in obtaining licenses by competitive bidding.

E. No Set Aside Should be Made for a Non-Conforming Use

The Commission has recently allocated 24 MHz of UHF spectrum in the 700 MHz band for use by public safety entities. Not only has that spectrum not even begun to be used, but there did not appear to be any basis for the Commission's offhand question as to whether some AMTS spectrum should be reallocated to public safety use. Allocating fewer frequencies for geographic licensing of AMTS would create operational problems for incumbent operators using all currently

² The less than compelling experience of the 220-222 MHz does not support an idea that fractionation of the AMTS spectrum among different licensing schemes would provide the public with any benefit, whatsoever.

allocated channels. If AMTS is to offer a service which can compete with other CMRS operators, AMTS needs all of the spectrum which has been allocated, and more.

The VHF 156-162 Public Coast band is enclosed within the 150-174 MHz land mobile band, therefore, Public Safety agencies could readily use the VHF Public Coast channels in their existing equipment. For Public Safety agencies to use the 216-220 MHz band, however, they would require additional, new equipment, which would not necessarily be interoperable with their existing equipment or with the equipment of related agencies. Therefore, the reasons which supported the allocation of some VHF channels to Public Safety use do not exist to support the diversion of the AMTS spectrum.

F. Incumbent Protection is Crucial to Continued AMTS Service

The Commission's proposed standards for protection of systems from interference are not sufficient and would result in the destruction of AMTS service. Greater protection is clearly required.

1. The Established Service Area Definition Should be Maintained

Both Regionet and its predecessor, WATERCOM, designed their systems, filed their applications, received grants, and commenced their provision of service to the maritime public on the basis of the 17 dBu service area definition provided by Subpart P of the Commission's Part 80 Rules. The 17 dBu service area definition provides continuity of service without the excessive costs which would result from a higher defined signal level. Had the Commission based the

service area of an AMTS station on a higher signal level, then incumbents would have needed more coast stations to provide the required continuity of service.

Were the Commission now to define the service area of an AMTS station by use of a 38 dBu contour, the Commission could disrupt or destroy existing service to the maritime public. Regionet's incumbent stations provide reliable, continuous service at their existing geographic spacings. As shown by the maps of the Gulf Coast attached as Exhibit II hereto, if incumbent stations' contours in some areas were defined at a level higher than 17 dBu, a geographic area licensee could interpose co-channel facilities between incumbent stations and destroy the maritime public's continuous service from incumbents.

Incumbent systems have been designed, authorized and are operating on the basis of a 17 dBu service area signal level. Were the Commission to adopt its proposal for a 38 dBu service area contour, it would have to demonstrate changed circumstances to justify the change in the rules. Since there have been no relevant or material changes in circumstances, the Commission would be unjustified in changing the long established service area signal level definition.

2. Greater Protection of Incumbent Stations is Required

Although the Commission proposed adopting a protection standard which it has applied to the 220-222 MHz band, the only relationship between the 220-222 MHz band and the AMTS band is that they lie between 216 and 222 MHz. The standards which were adopted for use in the

220-222 MHz band would probably prevent incumbent AMTS systems from operating when confronted with geographic based stations.

Because of the narrow channel bandwidths adopted in the 220-222 MHz band, the Commission essentially forced the use of amplitude compandored single sideband operation in that band. While 10 dB of protection may be sufficient in an amplitude modulation situation,³ existing AMTS systems use frequency modulation and suffer different modes of interference from those suffered by AM stations.

The Commission's experience in the 800 and 900 MHz bands has demonstrated that 10 dB of protection is not sufficient for reliable operation of a digitally controlled trunked system, such as an AMTS system. In its original 800 MHz band rules, the Commission adopted a 10 dB protection ratio. The field experience of Motorola, Inc. and others quickly demonstrated that 10 dB was inadequate and that a protection ratio between 14 and 17 dB was required for reliable operation of an FM trunked system. Therefore, the Commission amended its rules to provide a protection ratio of 18 dB between stations.

While the Commission has long used a 12 dB protection ratio for VHF stations, use of that ratio has been premised on conventional, manual operation, and not on trunked, automated

³ The unexciting pace of development in the 220-222 MHz band does not contribute to a conclusion that 10 dB of protection has been sufficient in that band. Because many 220-222 MHz band stations have little or no end user activity, there has not been a meaningful test of the appropriateness of a 10 dB protection ratio in that band.

operation. The traditional use of operators in the VHF Public Coast service accustomed VHF users to certain levels of nuisance interference between co-channel stations, but more modern, automated systems, such as Cellular and PCS, have now elevated customer expectations such that interference between systems is not commercially tolerable.⁴

While protection based on service area and interference contours is of greatest importance to incumbents and presents the greatest challenge to the Commission to select the correct standard, the matter of limiting signal strength at the boundary between geographic area systems also requires some consideration. Clearly, two geographic area licensees will have to coordinate with one another if both are to provide service near the boundaries of their areas. Therefore, the permissible signal level at the boundary between geographic area systems is likely to be a standard which it will not be necessary to enforce. Accordingly, Mobex would have no objection to the proposed +5 dBu boundary level proposed by the Commission.

G. Opportunities for Obstructive Behavior Should be Reduced

Mobex strongly supports the Commission's proposal to modify its rule which currently requires that an AMTS applicant state that, in an urbanized area, its location is the only suitable location. More than any other requirement, that requirement has engendered wasteful litigation

⁴ The VHF protection standard of 12 dB has been sufficient for AMTS thus far primarily because co-channel coastal AMTS operators are not geographically adjacent to one another and because an AMTS operator on, for example, the Atlantic Coast, cannot currently be confronted with a geographically adjacent co-channel operator to its west. Those situations would not continue to exist with geographic licensing. Therefore, there is no basis for believing that a 12 dB protection ratio would be sufficient in an environment of nationwide geographic licensing.

and it should be abolished. Although the Commission proposed to modify the rule, the requirement, in any form, would not be useful in the geographic licensing context. Therefore, the requirement should not be carried forward into the geographic licensing scheme in any form.

The Commission is unclear at paragraphs 39 and 40 of the NPRM as to proposed requirements for an engineering study, broadcaster notification, and the filing of an application for a station which would lie within a certain proximity to a television broadcast station. The NPRM is not clear whether the Commission would require the filing of an application for an AMTS station within a certain proximity to a TV station. If the Commission was proposing to require the filing of such an application, it should not adopt such a requirement. Mobex would have no objection to a requirement for the AMTS licensee to notify a broadcaster, but requiring an application for a specific station in the context of geographic area licensing nationwide would provide an inestimably large increase in Commission's application processing and litigation burden.

Mobex does not agree with the Commission's tentative conclusion that the engineering study requirement should be continued in the context of geographic area licensing. Because the Commission does not intend to require geographic area licensees generally to file applications for specific stations at specific sites, the public interest would not be served by requiring the preparation and filing of an engineering study with respect to any specific site. Mobex acknowledges its obligation to avoid causing interference to television reception on Channels 10 and 13 and to remedy any interference which may occur. The licensee has every interest in

selecting a site and operating parameters which will allow the licensee to provide service from that site indefinitely without causing interference to television reception. The AMTS geographic area licensee's own self interest will be sufficient to allow the Commission to discard the requirement for the preparation of an engineering study and the filing of an application for each station.

H. Service Requirements Should Reflect Inland Realities

Mobex supports the Commission's proposal to modify its service requirement to remove the requirement to serve minor waterways. A geographic area based AMTS licensee should not be required to serve any minor waterway, so long as marine-originated traffic is given priority over other traffic.

Mobex supports the Commission's proposal to require certain a level of service at five or ten year benchmark dates, depending on the presence of major waterways within the area. Consistent with the Commission's providing parity between geographic area SMR licensees and incumbent wide area SMRs, the Commission should provide the same, longer construction periods to incumbent AMTS licensees as it provides to geographic licensees.

I. A Licensee Should be Permitted to Acquire All AMTS Spectrum

The Commission should permit a licensee to acquire all AMTS spectrum which is offered to competitive bidding, and to acquire all AMTS spectrum by assignment of authorization, partitioning, or disaggregation. Such authority will be consistent with its treatment of other spectrum which has recently been awarded by competitive bidding.

In contrast to the vast quantities of spectrum allocated to competing CMRS services, only four megahertz was allocated to AMTS use and, of that, only two megahertz is assignable under the current rules. If AMTS service is to compete effectively against other CMRS services, an operator needs enough spectrum to provide competitive services.

Currently, AMTS operators use three different technical systems. One was specifically developed for AMTS use, but has been surpassed in spectrum efficiency by systems used in other services. Another is an adaptation of a mature land mobile technology. The third technical system is closer to the state of the art, but still, is an adaptation of an existing technology. Mobex desires to use state of the art, maximally spectrum efficient technology, but cannot obtain such technology without adequate spectrum.

Today's highly efficient digital modulation schemes employ wide bandwidths, and spectrum efficiency increases with increasing available bandwidth. Therefore, the first requisite for efficient use of the spectrum is the availability of sufficient spectrum to use an efficient modulation scheme.

Only if a manufacturer of radio equipment sees a large enough market to justify the costs of developing new equipment will new equipment be developed. The ability of an AMTS operator to interest a manufacturer in developing a state of the art product for AMTS use is directly related to the operator's capacity to provide service to a large number of end user units. To provide the necessary incentive for manufacturers to develop state of the art equipment for

AMTS, the Commission should permit an AMTS operator to obtain authorization for all AMTS spectrum.

Not allowing an AMTS operator acquire all AMTS spectrum would have adverse consequences for the public interest. In some areas, Regionet is currently authorized for both frequency Groups A and B. Were Regionet not permitted to compete at auction for both frequency Groups, then the public would be deprived of vigorous competition for one frequency Group. The absence of vigorous competition would likely lead to a speculator's acquiring a geographic area license at a low auction price with the intent not to operate, but rather, to reap a profit, unshared with the public at auction, by selling its license to Regionet. Expansion of AMTS service would thereby be delayed and made more costly, with no corresponding benefit to the public.

In a separate proceeding, the Commission is considering modification of the CMRS spectrum cap. Mobex believes that the spectrum cap provides the only limitation which should be applied to a licensee's acquisition of AMTS spectrum.

J. Technical Flexibility Should be Expanded

AMTS systems should be permitted to compete as fully as possible with all other CMRS operators. Therefore, the Commission should adopt its proposal to expand the technical flexibility of AMTS systems to permit the routine transmission of data.

New and exciting services will require innovative and increasingly efficient methods of operation. Therefore, Mobex supports the Commission's proposal permit AMTS licensees to use any form of data emission within their authorized spectrum.

K. Bidding Credits Should be Available to Provide Real Opportunities
To Small and Very Small Businesses

Mobex agrees with the Commission that bidding credits should be provided for small businesses and very small businesses, however, certain adjustments should be to the attribution rules applicable to competitive bidding for AMTS licenses. Specifically, in determining the past three years' revenues, the Commission should permit an applicant to exclude operating revenues from activities which have been discontinued more than one year prior to the filing of the short form application.

During the past three years, Mobex conducted certain revenue generating business activities in which it is either no longer involved or expects no longer to be involved in soon. For example, Mobex operated a group of radio communications equipment service shops which it has recently sold to other persons. Accordingly, Mobex will not receive any revenues from that activity in the current year or in any future year. Also, a Mobex subsidiary has requested consent to the assignment to another operator of 284 SMR licenses in the 800 and 900 MHz bands, see, Public Notice DA 01-08, released January 10, 2001. Were Mobex required to include the revenues from the operation of those lines of business in its revenues for past years, an average would unfairly give the impression that Mobex should not be able to use bidding credits.

While an average of the past three years' gross revenues helps to discourage efforts by auction participants to structure themselves especially to obtain bidding credits, the Commission's rules for determination of gross revenues should not disadvantage a business which has legitimately moved into the position of a small business. Therefore, the Commission should adopt rules for competitive bidding for AMTS licenses to allow an applicant to exclude revenues from discontinued operations.

After a long period of growth, the economy appears to be entering a lull or a decline. Indeed, the auction of AMTS frequencies may be the first to occur during a period of serious economic decline. As the economy declines, it is small business, with its limited access to capital which typically suffers first and longest. The Commission should take the state of the economy into account in structuring its rules and should provide maximum opportunities for truly small businesses to compete for the spectrum which is the lifeblood of telecommunications. To provide adequate opportunities and incentives for small and very small businesses, the Commission should allow an applicant to exclude revenues from discontinued operations from the determination of the past three years' gross revenues.

L. Pending Mutually Exclusive Applications Should be Returned or Dismissed

Persons who have filed applications for new AMTS facilities which are now pending before the Commission had no reason to expect that their applications, if found to be mutually exclusive with applications of other persons, would be subjected to competitive bidding. The Commission no longer has the authority to select among mutually exclusive applications by any

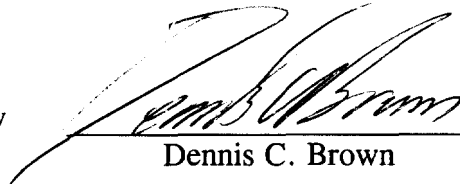
means other than competitive bidding. Therefore, to avoid unfairness to persons who have filed pending applications which are determined to be in a state of mutually exclusivity, and to expedite the grant of geographic area licenses, the Commission, consistent with its disposition of pending applications in similar situations, should return as no longer acceptable for filing, or should dismiss, all pending, mutually exclusive applications prior to conducting competitive bidding for geographic area licenses.

Conclusion

By providing additional opportunities for commercial operations in the AMTS band, the Commission's proposals will attract the necessary investment capital and manufacturing capacity to the AMTS band. Large license areas, flexible use of spectrum, protection of incumbent 17 dBu contours (or 38 dBu contours if the incumbent filed its applications on that basis originally), and the availability of the A and B frequency Groups to bidders will all serve to attract not just licensees, but business opportunities for success. For all the foregoing reasons, Mobex respectfully requests that the Commission amend its Rules as suggested herein.

Respectfully submitted,
MOBEX COMMUNICATIONS, INC.

By



Dennis C. Brown

126/B North Bedford Street
Arlington, Virginia 22201
703/525-9630

Dated: February 6, 2001

AMTS Public Coast Station Areas (APC)

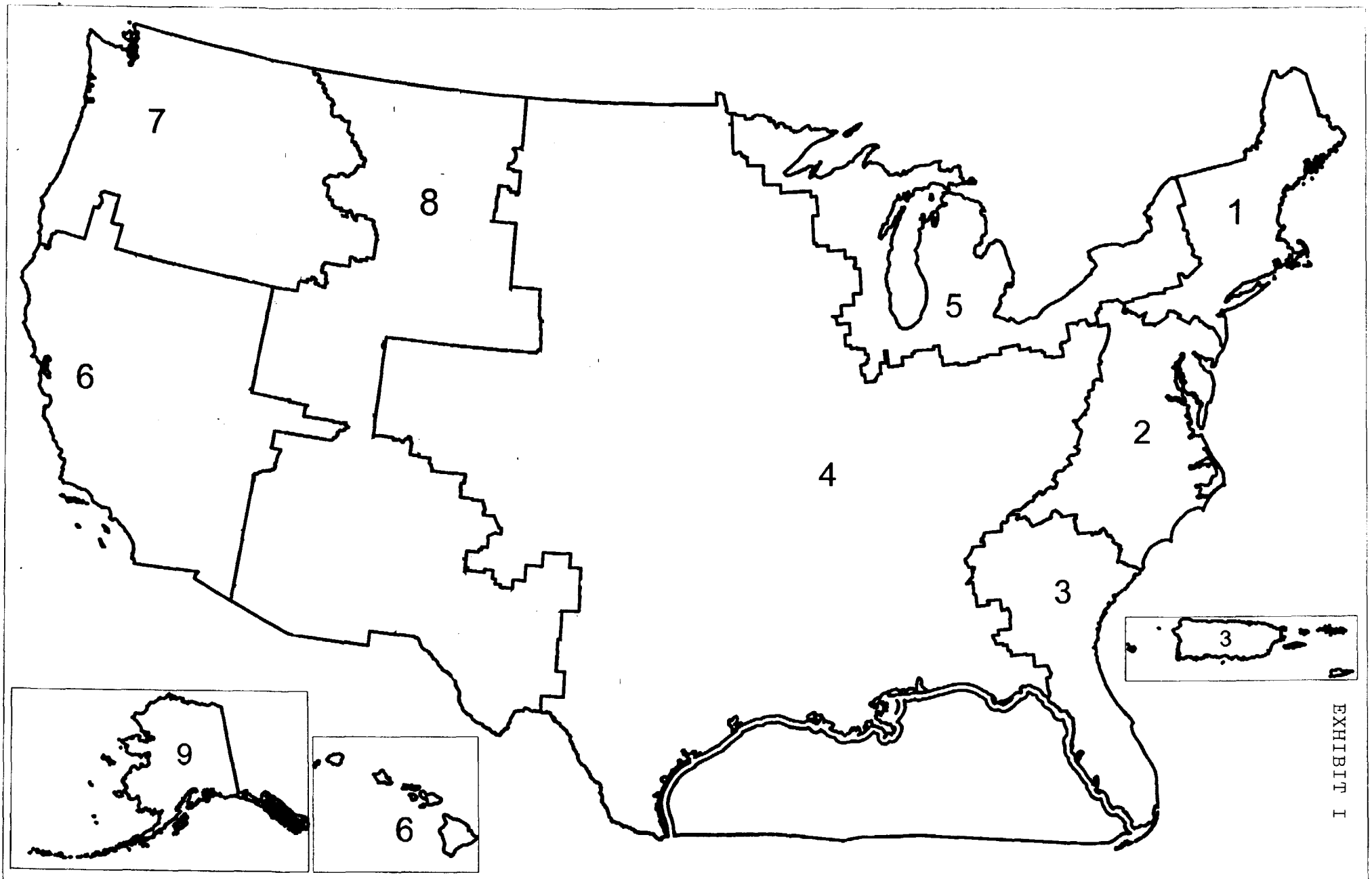


EXHIBIT I

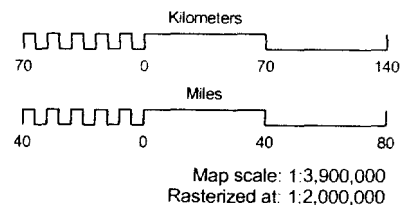
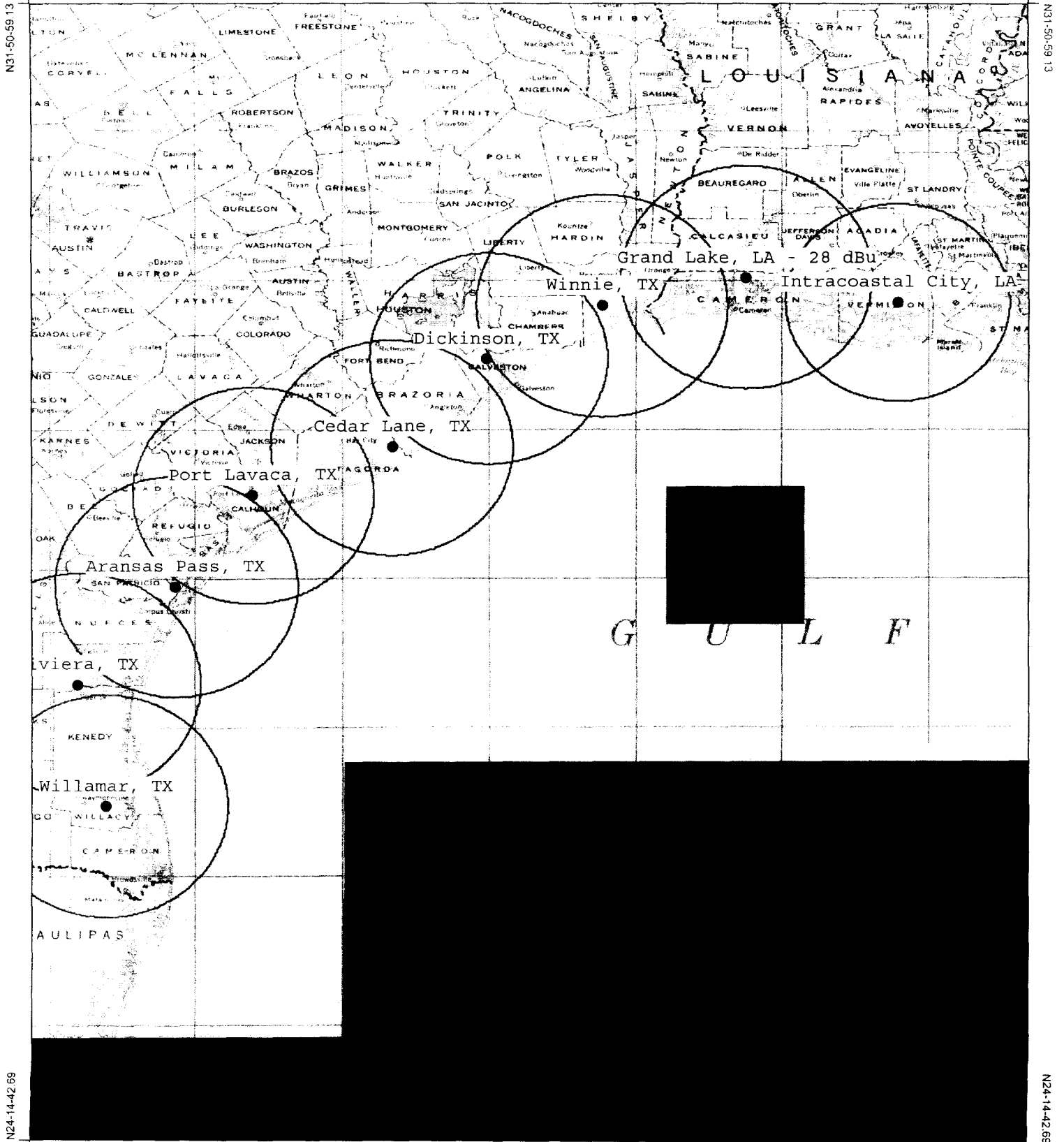
VPC 6 includes BEA 173 Guam and the Northern Mariana Islands and BEA 175 American Samoa
VPC 4 includes BEA 176 Gulf of Mexico

Federal Communications Commission
Wireless Telecommunications Bureau

EXISTING SERVICE AREAS – 17 dBuV/m CONTOURS

W98-07-35.92

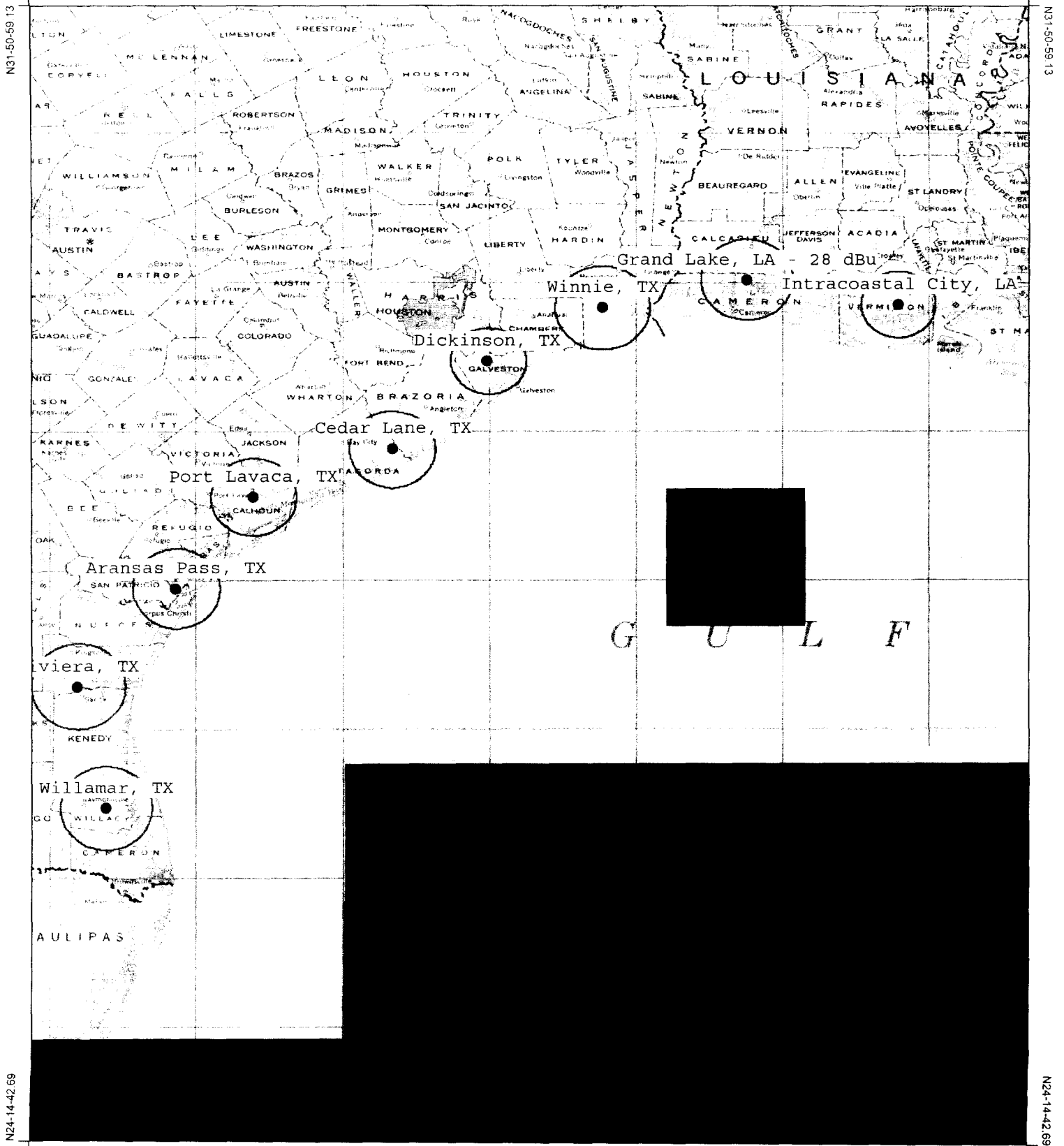
W91-19-29.41



W98-07-35.92

CONTRACTED SERVICE AREAS – 38 dBuV/m CONTOURS

W91-19-29.41



W98-07-35.92

W91-19-29.41

